

PROCEEDINGS  
OF THE  
BIOLOGICAL SOCIETY OF WASHINGTON

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DICHRMATISM IN *NEOTOMA MEXICANA FALLAX*  
FROM COSTILLA COUNTY, COLORADO.

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While collecting at San Acacio, Costilla County, Colorado, in June, 1912, I found a well marked case of dichromatism in *Neotoma mexicana fallax* Merriam. Briefly stated this took the form of dark-colored underparts, with the tail dark below as well as above, and the feet dark-colored down to the toes. As it is of a somewhat melanistic character I will, for convenience, refer to the specimens hereafter as melanistic.

The animals were captured in a low range of hills about three miles west of the town (the northwesterly end of the San Luis Hills), this being the first time the species had been taken in the San Luis Valley, Colorado. As usual, they were found among rocks, in this case an eruptive rock, dark brown in color, with a slight tendency toward a reddish tinge. Pieces of loose rock laying about were often a rusty red, but I saw no such rock in place. The soil about the rocks was not especially dark. I took careful note of these matters, thinking they might have some bearing on the coloration of the rats. My traps were set on one of the low ridges which form the range of hills, along the outcropping ledges on the summit, strung out for a distance of several hundred yards, and beginning near where the hill began to ascend from the prairie. I noticed that none of the melanistic rats were taken beyond a certain point, perhaps two hundred yards from where my trap line began. This may have been merely a coincidence, or it may mean that there was a family of the melanistic animals inhabiting that

area, though normally colored animals were captured there also. More extensive collecting will be necessary to determine this point.

In all twenty rats were trapped, 16 adults and 4 juveniles, the latter being evenly divided between the two colorations, while of the adults 11 were normal and 5 were melanistic. I regret that no account was kept of the number of normal individuals from the area in which the others were taken, but I did not realize until too late that these latter seemed to be confined to certain limits.

A more detailed description of the animals is as follows: The underparts of the melanistic examples are nearest the ochraceous buff of Ridgway but somewhat darker than the plate and with a vinaceous tinge; the base of the hair is plumbeous. This color in a somewhat modified shade forms the ground color of the upperparts, but is there given a dusky character by the admixture of black-tipped hairs. The face and top of the head are decidedly dusky, more so, especially the face, than in normal examples.

The upper part of the tail is black or slate black, shading imperceptibly into slate on the under side. The feet above are dark colored to the base of the toes (in one specimen the toes are dark). This color is now nearest Ridgway's mouse gray but darker, and my recollection is that in the fresh specimens it was nearer black.

The melanistic juveniles show the same characteristics, modified by the slaty-blue color of the juvenile coat. These were about half-grown.

In normal specimens from the same locality the underparts are white, the base of the hair being plumbeous as in the others. The sides are an ochraceous buff closely matching that of the other form, and the back is quite like the melanistic animals, but perhaps a trifle lighter and grayer, and the top of head and face are lighter. As the plates show, the feet are entirely white. The upper surface of tail is black, under white. There is sometimes an ochraceous-buff band on the chest between the forelegs; this is very variable, sometimes lacking entirely, sometimes extending clear across the chest, and various stages between these two extremes occur.

In comparing these specimens from San Acacio with others

